Claims

We claim:

1) A purified antibody recognizing specifically a nitrosylated protein.

2) The antibody in Claim 1, characterized by the fact that said protein is a transporter of NO.

3) The antibody in Claims 1 or 2, recognizing specifically a nitrosylated albumin.

4) The antibody in any one of Claims 1 to 3, characterized by the fact that it is a polyclonal antibody.

5) The antibody in any one of Claims 1 to 3, characterized by the fact that it is a monoclonal antibody.

6) All of the antibodies in Claim 4 or 5.

7) An immunogen for preparation of the antibodies in any one of the preceding claims, characterized by the fact that it is composed of a nitrosylated carrier protein whose sequence possesses a nitrosylation site, or by a nitrosylated amino acid coupled to a carrier protein by a coupling agent selected among carbodiimide, glutaraldehyde or succinic anhydride.

8) The immunogen in Claim 7, characterized by the fact that the nitrosylation site or the amino acid is chosen among tyrosine, cysteine, potentially acetylated, or tryptophane.

9) The immunogen in ~~one of~~ Claims 7 ~~or 8,~~ characterized by the fact that the carrier protein is an albumin.

10) A process for preparation of an immunogen according to ~~any one of~~ Claims 8 ~~to 9~~, characterized by the fact that an amino acid is coupled to a carrier protein, then the conjugate obtained is nitrosylated with an NO donor compound.

11) A pharmaceutical compound, characterized by the fact that it contains as its active ingredient an antibody according to ~~any one of Claims 1 to 5 or a group of antibodies according to Claim 6~~ advantageously dispersed in a pharmaceutically acceptable vehicle or excipients.

12) The use of an antibody according to ~~any one of Claims 1 to 5 or a group of antibodies according to Claim 6 or a compound according to~~ Claim ~~1~~ 11, for the preparation of a drug designed to treat or prevent a pathology in which NO, its derivatives or conjugates are involved.

13) A process for *in vitro* detection of nitrosylated proteins in a biological specimen comprised of at least the following steps :

- putting the sample in contact with at least one antibody according to ~~any one of Claims 1 to 5 or a group of antibodies according~~ to Claim ~~6~~ 11, which may be marked, under conditions that permit the formation of immunological complexes;
- detection of an antigen-antibody immunological complex by physical or chemical methods.

14) a kit for use of the process in Claim 13, characterized by the fact that it contains :

- at least one antibody according to ~~any one of Claims 1 to 5 or a group of antibodies according to~~ Claim 6 which may be marked,
- reagents to produce a medium favorable for an immunological reaction between said antibody and any nitrosylated proteins that may be present in a biological specimen
- potentially one or more reagents for detection, which may be marked and can react with any immunological complexes that may be formed;
- potentially one or more biologic reagents for reference and control.